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ABSTRACT

An Arabic translation of the "Work Environment Scale" was administered to the employees of Riyadh University's College of Education in Saudi Arabia for the purpose of gathering data useful in administrative decision-making. The survey investigated the work environment of the college as it is perceived by three distinct groups: the faculty, the technicians, and the secretarial staff. The objectives of the study were to compose a profile of each group, to determine the differences and similarities of the three groups, and to propose appropriate administrative responses. For each group the subscale showing the most dramatic deviation above (U.S.) standard scores was that of "work pressure." Standard scores in "control," "innovation," and "physical comfort" also reflected, across all groups, results notably higher than U.S. norms. A number of other subscales showed mixed results. When Saudi standard scores are examined, a number of results emerge. Overall, the technicians and secretaries are seen to have a good deal more in common with each other than either has with the faculty. These findings and others provided the college administration with a diagnosis of the work environment, and interpretation of the data yielded recommendations for administrator action. (Author/JM)

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Social Climate and Administrative Decision-making

Research for Institutional Renewal

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A Paper Presented at the American Educational Research Association Annual Meeting April, 1979, San Francisco.

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Abstract

An Arabic translation of the "Work Environment Scale" was administered to the faculty, technicians and secretaries of Riyadh University's College of Education for the purpose of gathering data useful in the administration of the College. This paper reviews the survey and includes a list of administrative strategies inferred from the findings.

The Problem

The Kingdom of Saudi Arabia established Riyadh University in 1957 as the Arabian Peninsula's first university similar to Western ones. This followed several decades of work toward developing compulsory public education--a program which is still expanding to include all segments of a mobile population spread over a broad geographical area. It follows that a generation or more of teachers and, particularly, faculty members have had to be drawn, to a large extent, from other states which had established universities training educators. For this reason, the faculty and technicians at Riyadh's College of Education, the university's largest college, come from more than a dozen nations and expatriate personnel comprise approximately seventy-five per cent of the total.

The College of Education, Riyadh University, provides for its students a complete curriculum for teacher education and the baccalaureate degree in a specified array of major fields. Unlike colleges located on a single university campus, our College must encompass representative sub-departments in cognate fields outside of education and psychology and their associated fields. In addition, the College houses a regional Center for Education Technology, a Center for In-Service Training, and an Educational Research Center. With such a diversified curriculum and mission, we must maintain a varied faculty and technical staff.

Disciplinary diversity and multinational staffing, then, characterize our College and bear mentioning in a description of the environment in which we teach.

The role of a dean consists of creative acts and limiting ones; of clarifying issues for action and implementing responses when such are deemed necessary. In the Spring

of 1978, the Educational Research Center conducted a survey at the writer's instance in order to help us understand more perfectly certain aspects of our institutional life and to gather data needed for the decision-making process of the College administration. The translation of the "Work Environment Scale"[1] into Arabic was undertaken as an initial step in the process, along with securing the right to publish such a version for research purposes. Consulting Psychologists Press provided that permission.

The purpose of this paper is to report the results of this survey which was undertaken to investigate the work environment of our College as it is perceived by three distinct groups: the faculty, the technicians, the secretarial staff.

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The Objectives

The objectives of the study were three:

1. To compose a profile of each group as illustrated by the results in the ten subscales of the "Work Environment Scale."

2. To determine the differences and similarities of the three groups as indicated by the "Work Environment Scale", its American Standard Scores, and tentative Saudi Standard Scores developed from this survey.

3. To propose administrative responses aimed at improving the work environment based in part on an analysis of the coefficients of correlation between pairings of the subscales for each group.

The Importance of the Study

The job of administering a major public-affiliated college of education is no less difficult in Saudi Arabia than it is, for example, in any of the United States. Additionally, there is the further complication that of necessity most of our administrators are trained in the West and study Western models for and theories of administration. One vital step in the adaptation of this Western curriculum to Saudi problem-solving is the accumulation of a body of reliable local data which describe the national situation. This study was undertaken, in part, to provide some of the information necessary for Saudi administrators to better perform their duties.

The WES was judged to be a proper instrument for use because of its broadly-based American norms (which are drawn from blue- and white-collar populations in a variety of settings); its limited, but thoughtful, selection of subscales; and the simplicity of the responses called for. Faced with three distinct groups within our population, the Scale's ability to survey professionals, technicians, and secretaries and, therefore, to provide data for inter-group comparison was of clear benefit.

It was expected that the survey would identify the relative levels of satisfaction or dissatisfaction among the groups with respect to the specific subscales. In some instances administrative policy would be shown as weak or strong. In most cases, gathering additional data and the performance of careful analysis would be needed. The survey was designed to be a preliminary, but quite meaningful, step.

Limitations of the Study

This survey of Riyadh University's College of Education introduced a Western style of data-gathering in a context where such research is not commonplace. Because of the novelty of the approach, special limitations characterize the study.

The WES is dichotomous in nature, limiting responses to a basic positive or negative reply to each item. In the College environment this was seen as a strength since the subjects were confronted with a less bewildering set of choices (as in a rating scale). Simplicity may be had here, of course, at the cost of sensitivity. This trade-off was consciously made in selecting the WES.

The WES limits the areas of response to ten subscales which are grouped into three dimensions. The survey could gather data only in these pre-ordained categories and, therefore, describes the social environment of the work group according to the ten subscales which the designers of the WES have specified. This restriction is an acknowledged characteristic of the study and was opted for in preference to a more impressionistic, broader style of information gathering.

The WES was translated into Arabic by a team of specialists headed by a psychologist of Arab origin and American training. It was assumed that professional educators and psychologists were a better choice to translate such an instrument than a full-time translator would have been. The technical nature of the task and the need for an understanding of the mechanics of such an instrument were the guiding reasons for this assumption. The Arabic version was then administered without determining whether

reliability and validity had been affected by the process of translation. Although such procedures would be desirable, the research team believed that a careful translation executed by persons trained in psychometrics would retain the basic integrity of the WES for survey application.

A severely limited face sheet was used in administering the survey: the only information called for was the type of employment the subject held (i.e., faculty, technical, secretarial). Although there are numerous additional details which would be of interest (such as age, nationality, years of service, etc.),[2] they were deliberately not requested. Conducting a survey such as this one in a population and setting where such a procedure was novel raised some anxiety. Therefore, great effort had to be made to assure not only individual anonymity, but anonymity of identifiable groups, such as "foreign contractees", "employees hired in 1977" or "Saudi nationals." In an attempt to gain accurate information, the face sheet was, in the ways specified, kept basic.

The foregoing list places substantial restrictions on the scope of this survey. The study was conducted without any remorse, however, because it was thought that a realistic, limited effort would yield usable results and, at the same time, build familiarity which could allow future research within this population to be more incisive. On the other hand, a wrong-headed introduction to survey could have alienated the College staff, not only from research, but from the administration. There is, clearly, an implicit statement on the conduct of educational research in a developing country context which is made by the design of this survey.

The Procedure of the Study

Initially, the WES was chosen as the survey instrument. For those unfamiliar with it some description is in order. The Work Environment Scale by Rudolf H. Moos and Paul M. Insel "assesses the social climate of all types of work units. It focuses on the measurement and description of the interpersonal relationships among employees and between managers and employees; on the directions of personal growth and development which are emphasized in the work unit; and on the basic organizational structure of the unit. ... The exact choice of items was guided by a general formulation of environmental press." (3)

Because of their significance to the study, the subscales and their descriptions are presented here in Table 1.

The Scale was translated into the literary Arabic language by a team of educators and psychologists, Arab and non-Arab. Permission was obtained from Consulting Psychologists Press, Palo Alto, California, to publish this Arabic translation for our research purposes exclusively.

A research assistant distributed by hand a copy of the WES to each faculty member, 108, technician, 31, and secretary, 20, at the College. During the following week the research assistant collected the completed Scales personally, taking care to preserve the respondents' anonymity. The number of respondents was faculty, 88, technicians, 24, secretaries, 12.

Results of the Study

No returns were judged nonusable. A response rate of 80% on the ninety items was the criterion of usability.

Table 2 shows the results of the survey as tabulated by the Educational Research Center's statisticians. The statistics calculated were (for each group) the mean and standard deviation for each subscale; the standard scores (based on American and Saudi norms) for each group for each subscale; and the coefficients of correlation between subscale pairings for each group.

Graphs 1-8 illustrate the emergent (Saudi) group standard scores, and the results vis-a-vis the U.S. standard scores.

For each group the subscale showing the most dramatic deviation, exceeding the U.S. standard scores, was "Work Pressure." (4) In the entire survey, the secretarial group in this subscale manifested the standard score most at variance with the U.S. norms. Standard scores in "Control","Innovation,"and "Physical Comfort" also reflected, across all groups, results notably higher than U.S. norms.

The three subscales identified as "Relationship Dimensions" (See Table 1) returned (U.S.) standard scores in all groups in all subscales which were below the U.S. norms. The other two subscale groupings, "Personal Growth Dimensions" and "System Maintenance and System Change Dimensions," showed mixed results without a simple unifying trend. Excluding the faculty, however, it did appear that for technicians and secretaries in the standardized reporting of the "Personal Growth Dimensions" a theme did emerge, i.e., below normal "Autonomy" complemented by above normal "Task Orientation."

Although the standard scores of the WES are well-developed for use in America, to help avoid the possibility of cultural bias in reporting the results of the survey, Saudi standard scores were calculated from the data gathered in this study. While acknowledging the limited usefulness of these "norms," the research team concluded that such were necessary in this particular application.

From this perspective the results in the "Relationship Dimensions" show great divergence between the technicians and the secretaries and a near normal performance by the faculty. Group A shows an opposite trend to that of Groups B and C in the "Personal Growth Dimensions." Whereas the faculty yielded below normal but undramatic results in the "System Maintenance and System Change Dimensions," Groups B and C showed high scores in "Work Pressure" and "Clarity," among other notable results.

Among the subscales there are significant moderate to high positive correlations which occur across all groups, most prominently: between "Autonomy" and "Staff Support;" and between "Task Orientation" and "Involvement." For both the technicians and secretaries, several common positive pairings can be seen, including: "Control" and "Task Orientation;" and "Physical Comfort" and "Task Orientation." The faculty and secretaries both show "Autonomy" and "Involvement" to be positively correlated.

The faculty and technicians show a similiar degree of correlation between "Work Pressure" and "Task Orientation." Individual instances of moderate to high positive correlation occur for the faculty between "Clarity" and "Task Orientation," for the technicians between "Work Pressure" and "Involvement," "Physical Comfort" and "Control," and between "Control" and "Involvement;"

and for the secretaries, between "Clarity" and "Peer Cohesion," "Clarity" and "Autonomy," "Clarity" and "Involvement," and "Physical Comfort" and "Clarity." No high coefficients of negative correlation were found. The correlations singled out for mention here were well above the corresponding American subscale intercorrelations, which never exceed r=59 and averaged r= .25. [5] (See Tables 3-5.)

Conclusions

The survey results must be analyzed in at least two ways: in comparison to the U.S. standard scores and without reference to those scores (i.e. contrasting and comparing the three indigenous groups only through Saudi standard scores). The objectives of the study were drawn up with this in mind.

By examining the Saudi standard scores of the three groups in the ten subscales to identify the dominant characteristics of each group, the technicians and secretaries are seen to have a good deal more in common with each other than either has with the faculty. This is unsurprising. However the secretaries, who work closely with the faculty, perceive the work environment more as the professors do than as do the technicians,who are a relatively isolated group. The overall findings are best examined on a group-to-group basis.

When Group A, faculty, is examined in the context of Saudi standard scores, the results are so close to normal (50.0) that one hesitates to make much of them. Shown vis-a-vis the U.S. norms, there appears to be a weakness in all three "Relationship Dimensions." The "Personal Growth Dimensions" are below normal. Among the final five subscales we find "Clarity" low; and an

absolute reversal of the Saudi standard scores in "Work Pressure," "Control," "Innovation," and "Physical Comfort."

Pausing for a moment to reflect,and emphasizing results which are common to both sets of norms, it seems to follow that the faculty could enjoy a higher degree of collegiality (although professors, it is suspected, may characteristically be a non-cohesive group); and there could be a better definition of faculty responsibilities coupled with more effective communication of such information. Such activities could address the weak "Task Orientation" of the environment.

The technicians' (Group B) profile is the most erratic of the three. In the "Relationship Dimensions", means and standard scores are low in both Saudi and American contexts (excepting "Involvement" if it is judged only in the context of the Saudi norms). "Autonomy" is low, and "Task Orientation" high in either context.The "System Maintenance and System Change Dimensions" are also high in either context. The standard deviations for each subscale are, overall, lowest in Group B (among the three groups).

The technicians appear to be the most disaffected of the groups. Interpersonally, the technicians seem to feel isolated both from their peers and from the faculty and/or administrators who direct them. Professionally, there is a perception among the technicians that they can "get the job done," but that their "Autonomy" is low, i.e. managerial control over them is excessive. Among the reasons underlying these findings may be: a kind of rivalry between professionals (Group A,) and para-professionals (Group B) existing; feelings

of insufficient job security may be present, fueling divisiveness and competition within Group B; adequate non-monetary reward structures may be lacking for technicians; and, the lines of authority may be too consistently "from the top down" with little feedback from technicians to managers. There seems to be, however, a substantial reservoir of good feeling in Group B toward the work itself (subscale 1) and the "Physical Comfort" of their work environment.

Although the secretaries (Group C) perceive an environment which encourages productivity, pressure within that environment is clearly excessive. Of course, this is a characteristic problem for secretaries in general who are typically asked to do everything A.S.A.P. ("as soon as possible"). The tendency, however, to feel little autonomy or variety in regard to their work, and a high rate of control can more probably be ameliorated by policy changes. The secretaries demonstrate the highest degree of social satisfaction with the environment and this is, no doubt, a valuable source of good feeling within the College community (see especially subscale 2).

The correlations between pairs of subscales can be brought to bear in analyzing the survey data as it has been refined in the preceding paragraphs. For example, for all groups a strong relationship exists between feelings of "Autonomy" and "Staff Support." All groups may be looking to the administration for encouragement to take initiative. The correlation between "Task Orientation" and "Involvement" seen in the context of the standard scores for these subscales would suggest that personal commitment is the most general source of an orientation toward productivity at the College.

Other factors come into play, however, as we look at correlations which are not necessarily common to all the groups. "Autonomy," for example, is also related to "Involvement," suggesting that commitment may emanate from feelings of self-sufficiency.

"Task Orientation" is correlated with "Control," "Physical Comfort," "Work Pressure," and "Clarity" (in addition to "Involvement") suggesting a balanced array of "carrots and sticks" which may contribute to productivity.

The secretaries show a remarkable series of correlations between "Clarity" and "Peer Cohesion," "Autonomy," "Involvement," and "Physical Comfort." This may be a function of the personality types who find their way into this line of work. Similar findings among the technicians are to be seen between the subscales "Involvement" and "Task Orientation" and other subscales. The faculty shows no such trends.

Recommendations

Since this survey was conceived as an aid to the administration of the College, some recommendations for action are in order.

(1) "Staff Support" seems most clearly to be the dimension in which the administration could take positive action to affect the entire work environment in a beneficial way. It can be inferred from the survey findings that a policy of administrative encouragement of autonomy would promote individual commitment and, thereafter, productivity (Subscale 3→4→1→5).

(2) With respect to the faculty, there appears to be a need for greater "Clarity" on the part of the administration in enunciating policy. Such clarification may well enhance productivity ("Task Orientation").

(3) The technicians should be encouraged to develop greater autonomy in their work; efforts should be made to alter an administrative system perceived by them to be controlling and, perhaps, non-responsive to their opinions. They must be recognized as a group which has unique characteristics and be interacted with by the administration in a manner appropriate to them.

(4) The disposition of the technicians toward "Involvement," i.e. "commitment, enthusiasm, and constructive activity," may be the key to increasing their rate of job satisfaction. The technicians are a para-professional group whose responsibilities are considerably more concrete and tangible than those of most professionals. There may be a considerable potential within this group to creatively perform their duties at a higher level of efficiency if they perceive their work to be valued for what it is (i.e. concrete and tangible, not abstract and verbal).

(5) The administration in its relations with the secretaries should continue to emphasize "Clarity." "Knowing what to expect," a sense of orderliness in the work environment, appears to be the quality which is most meaningful to this group.

(6) The secretaries should be protected from unreasonable demands with respect to their work. The "A.S.A.P." approach to scheduling work should be restricted.

(7) The secretaries can be seen as the clearest reservoir of positive social feeling in the College community. This characteristic should be recognized, valued, and employed in building community feeling among all groups.

These recommendations are presented on a relatively general plane. Examples of how they are to be manifested in actions would include: more meetings between managers and technicians; exhibits of the products of the technicians' work; invitations to technicians to some of the College's social events (e.g. banquets); propounding detailed job descriptions for secretaries, including a policy for scheduling work; cooperative development, with the faculty

of a statement of the College's mission and priorities; publicity for innovation in College work; administrative support for individual initiative for members of all groups in their approach to their assignments.

The survey provided the College administration with a diagnosis of the work environment and the interpretation of the data has yielded concepts which can be used in taking action. Important groundwork has been laid for future, more detailed surveys both at the College and elsewhere in the Kingdom. Such research in social climate has a place in the renewal and development of Saudi institutions.

Footnotes

1. Rudolf H. Moos and Paul M. Insel, "The Work Environment Scale," Consulting Psychologists Press, Palo Alto, California, 1974.
2. Sex would not be relevant: the college is an all male institution.
3. Rudolf H. Moos, Paul M. Insel, and Barrie Humphrey, Combined Preliminary Manual: Family, Work, and Group Environment Scales, Consulting Psychologists Press, Palo Alto, California, 1974, p. 16.
4. When Saudi norms are applied this trend reverses for Group A, faculty.
5. Manual, op. cit., p. 19.

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Table #1

Work Environment Scale Subscale Descriptions*

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Relationship Dimensions	
1. Involvement	Measures the extent to which workers are concerned and committed to their jobs; includes items designed to reflect enthusiasm and constructive activity.
2. Peer Cohesion	Measures the extent to which workers are friendly and supportive of each other.
3. Staff Support	Measures the extent to which management is supportive of workers and encourages workers to be supportive of each other.
Personal Growth Dimensions	
4. Autonomy	Assesses the extent to which workers are encouraged to be self-sufficient and to make their own decisions. Includes items related to personal development and growth.
5. Task Orientation	Assesses the extent to which the climate emphasizes good planning, efficiency and encourages workers to "get the job done".
System Maintenance and System Change Dimensions	
6. Work Pressure	Measures the extent to which the press of work dominates the job milieu.
7. Clarity	Measures the extent to which workers know what to expect in their daily routines and how explicity rules and policies are communicated.
8. Control	Measures the extent to which management uses rules and pressures to keep workers under control.
9. Innovation	Measures the extent to which variety, change, and new approaches are emphasized in the work environment.
10. Physical Comfort	Assesses the extent to which the physical surroundings contribute to a pleasant work environment.

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* Taken from the Work Environment Scale Preliminary Manual.

Table #2

SUMMARY OF MEANS, STANDARD DEVIATIONS, AND STANDARD SCORES

Subscale*	Mean	S.D.	U.S. Stand. Scores	Saudi Stand. Scores	Mean	S.D.	U.S. Stand. Scores	Saudi Stand. Scores	Mean	S.D.	U.S. Stand. Scores	Saudi Stand. Scores
Involvement	5.7	2.0	42	49.5	6.4	2.0	49	52.7	5.3	2.8	48	47.7
Peer Cohesion	5.1	1.8	42	50.0	4.8	1.3	42	48.2	5.5	1.8	47	52.3
Staff Support	5.3	2.1	46	49.5	5.1	1.8	42	48.5	5.3	2.4	46	49.5
Autonomy	5.4	2.0	49	50.4	4.7	2.2	44	47.1	4.9	2.4	44	48.0
Task Orientation	6.1	2.3	46	48.7	7.6	2.1	59	55.0	6.3	2.6	51	49.5
Work Pressure	6.3	2.0	57	48.0	6.5	1.5	63	54.0	6.8	1.7	66	55.5
Clarity	5.1	2.0	44	49.0	5.7	1.4	52	52.0	5.8	2.2	52	52.5
Control	5.4	2.0	53	48.5	7.0	1.4	62	50.8	6.2	1.3	56	49.7
Innovation	5.8	2.2	55	49.0	6.5	1.7	58	50.0	5.3	1.6	59	48.3
Physical Comfort	5.6	2.1	55	49.0	6.2	1.9	58	52.0	5.5	1.8	55	48.6
	Group A.....				Group B.....				Group C.....			

*Each subscale has nine items.

	Involvement	Peer Cohesion	Staff Support	Autonomy	Task Orientation	Work Pressure	Clarity	Control	Innovation	Physical Comfort
Involvement	--	.27**	.42**	.55**	.61**	.36**	.50**	.33**	.50**	.12
Peer Cohesion		--	.44**	.43**	.19	.03	.27**	.05	.46**	.31**
Staff Support			--	.70**	.37**	.19	.46**	.11	.50**	.29**
Autonomy				--	.49**	.14	.43**	.21*	.58**	.24*
Task Orientation					--	.60**	.68**	.49**	.34**	.29**
Work Pressure						--	.48**	.50**	.16	.06
Clarity							--	.34**	.30**	.36**
Control								--	.19	-.02
Innovation									--	.23*
Physical Comfort										--

*p<.05 N=88
**p<.01

SUBSCALE INTERCORRELATIONS: GROUP A

Table #3

	Involvement	Peer Cohesion	Staff Support	Autonomy	Task Orientation	Work Pressure	Clarity	Control	Innovation	Physical Comfort
Involvement	--	-.04	.38	.14	.77**	.73**	.12	.73**	.40*	.56**
Peer Cohesion		--	-.16	-.03	-.08	.11	-.06	.01	-.09	-.18
Staff Support			--	.52**	.36	.11	.22	.33	.50*	.29
Autonomy				--	.32	-.16	.31	.14	.13	.03
Task Orientation					--	.61**	-.008	.82**	.49*	.54**
Work Pressure						--	.07	.54**	.47*	.37
Clarity							--	-.10	.29	-.03
Control								--	.31	.64*
Innovation									--	.16
Physical Comfort										--

*p<.05
**p<.01 N=24

SUBSCALE INTERCORRELATIONS: GROUP B

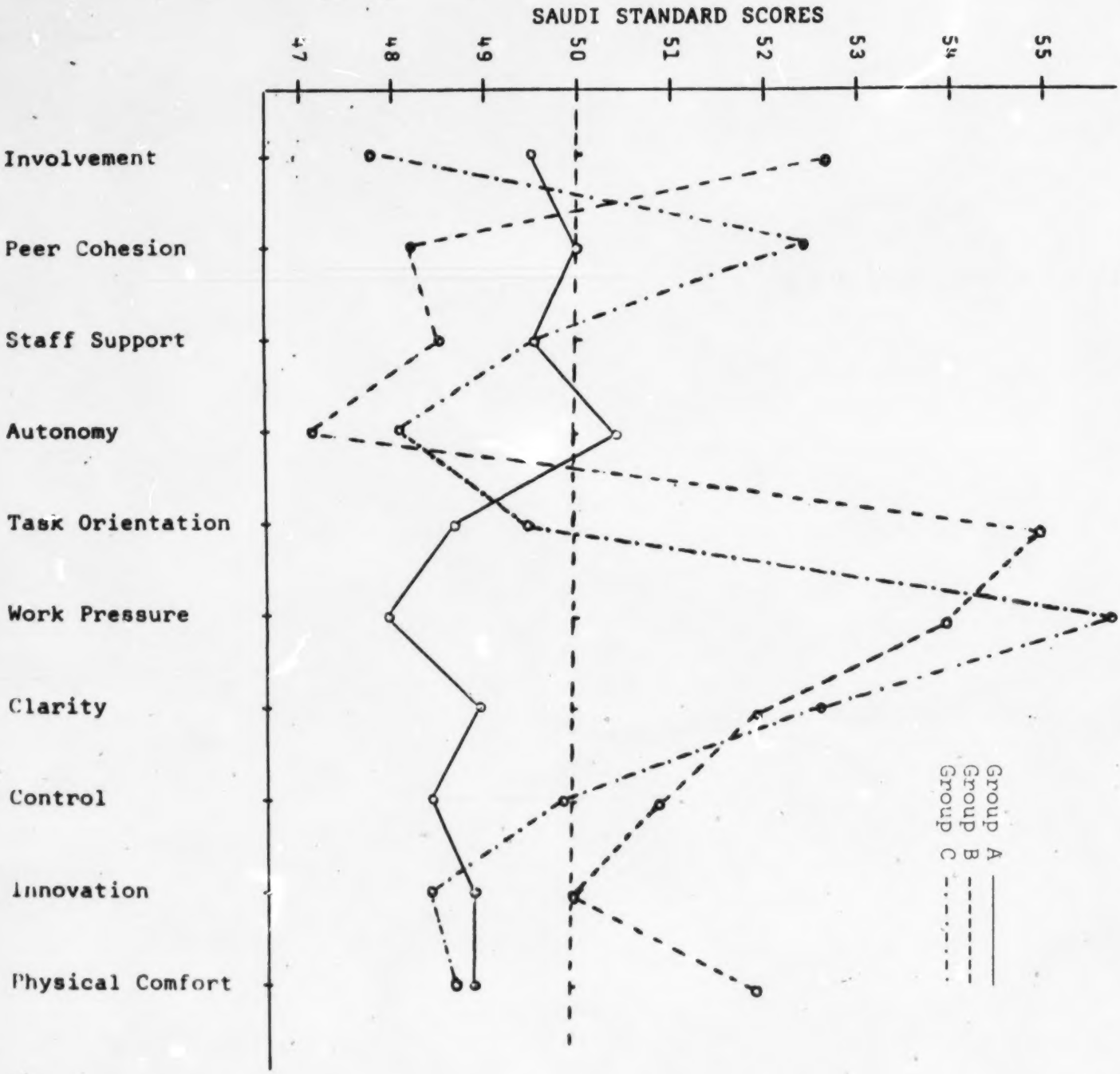
Table #4

	Involvement	Peer Cohesion	Staff Support	Autonomy	Task Orientation	Work Pressure	Clarity	Control	Innovation	Physical Comfort
Involvement	--	.52	.46	.60*	.80**	.40	.71**	.37	.11	.42
Peer Cohesion		--	.41	.54	.42	-.17	.67*	-.07	000	.46
Staff Support			--	.74**	.15	-.06	.47	-.30	-.09	-.03
Autonomy				--	.30	.29	.65*	.03	.05	.47
Task Orientation					--	.34	.56	.61*	.13	.57*
Work Pressure						--	.02	.32	.41	.34
Clarity							--	.40	.02	.62*
Control								--	.37	.43
Innovation									--	-.16
Physical Comfort										--

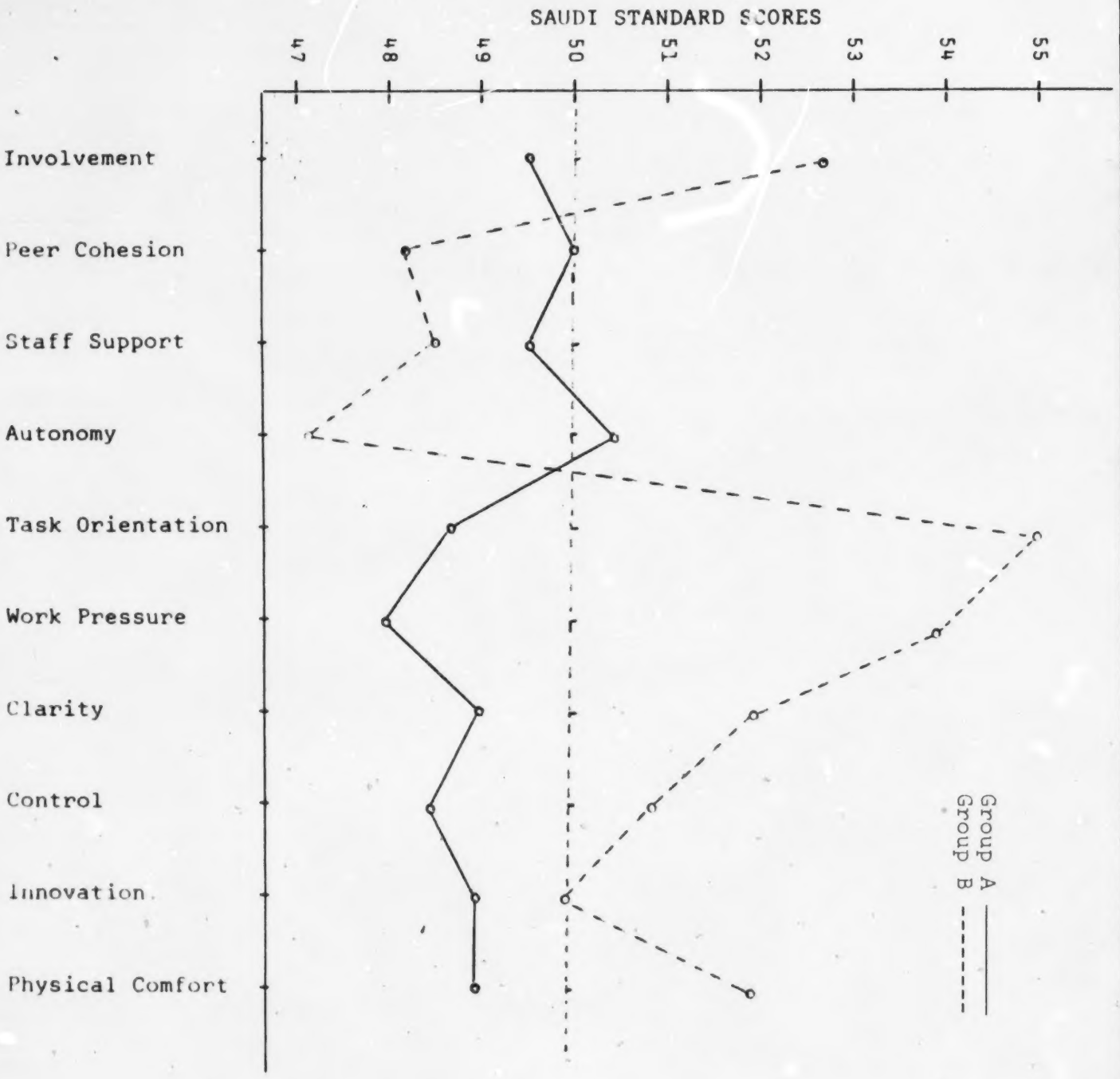
*p<.05 N=12
**p<.01

SUBSCALE INTERCORRELATIONS: GROUP C

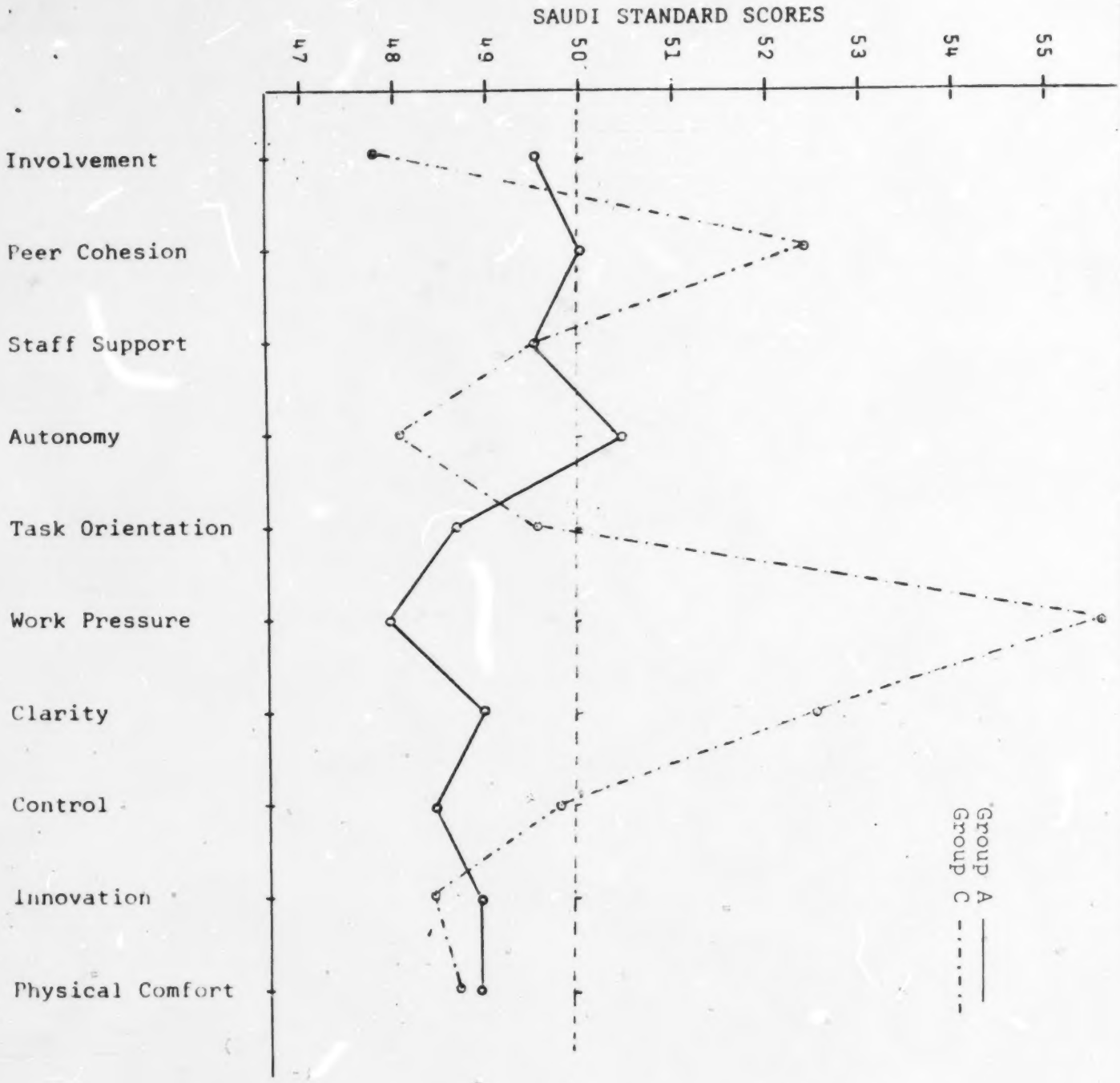
Table #5



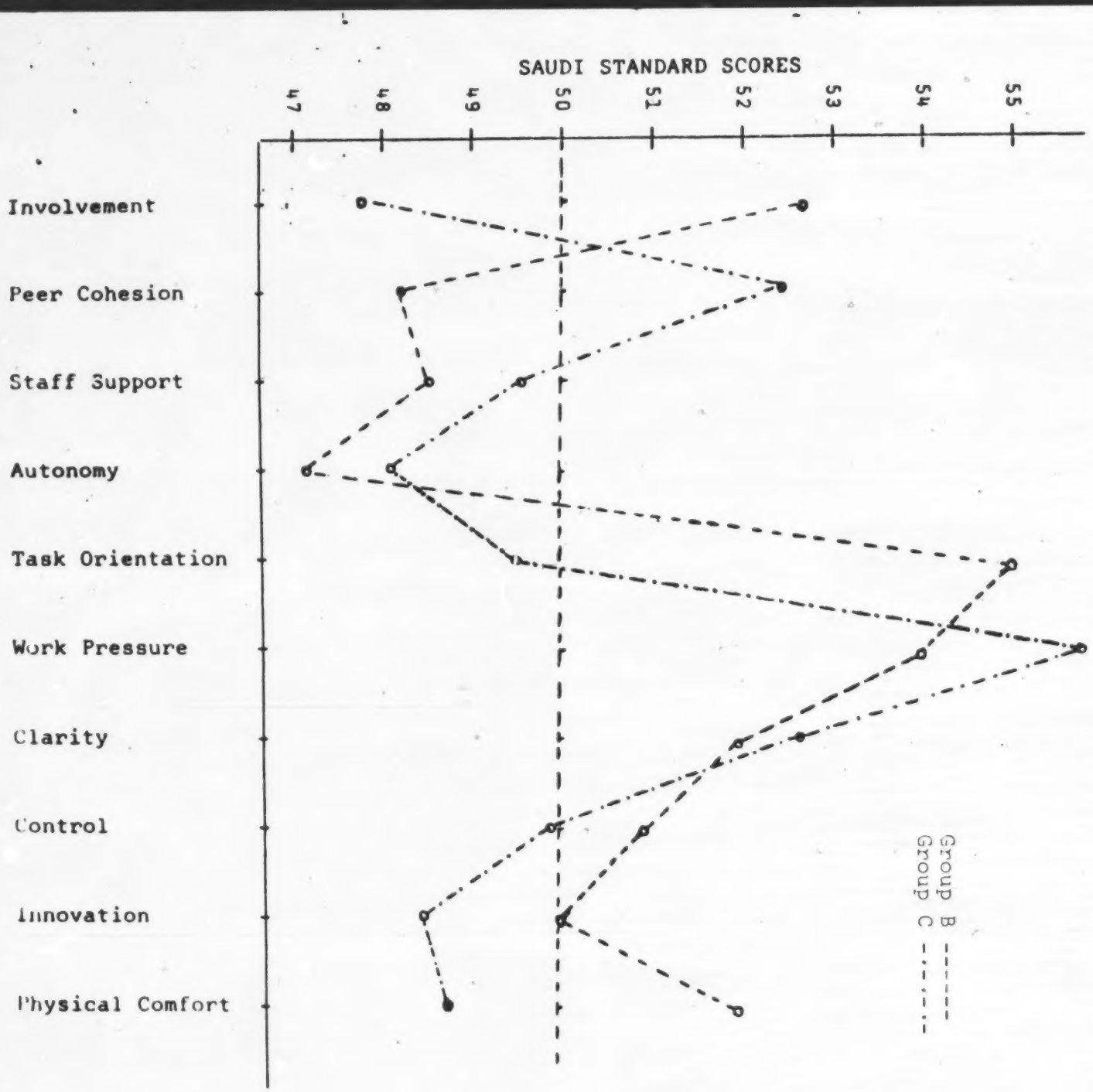
Graph 1: All Groups, Saudi Standard Scores



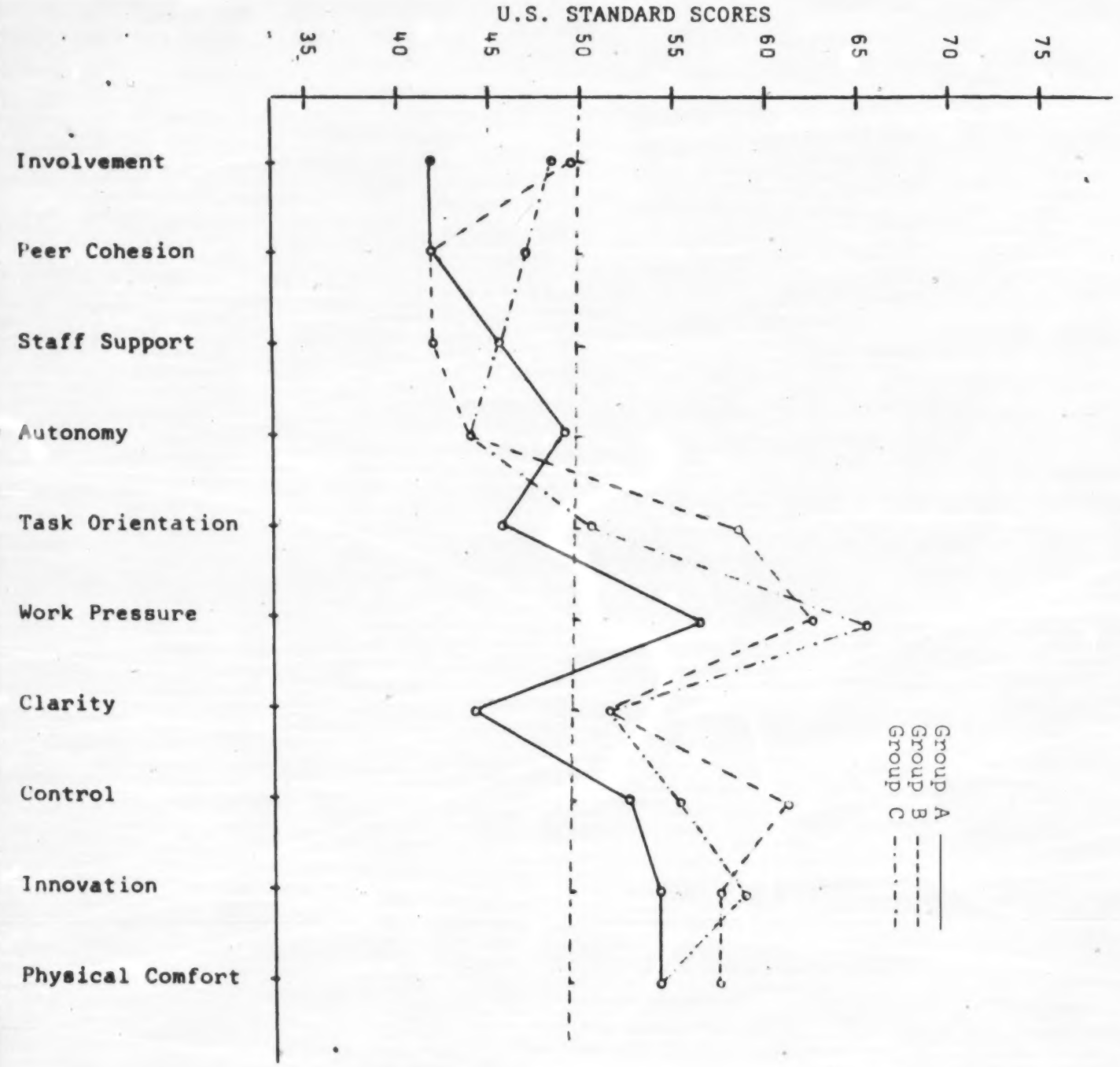
Graph 2: Groups A & B, Saudi Standard Scores



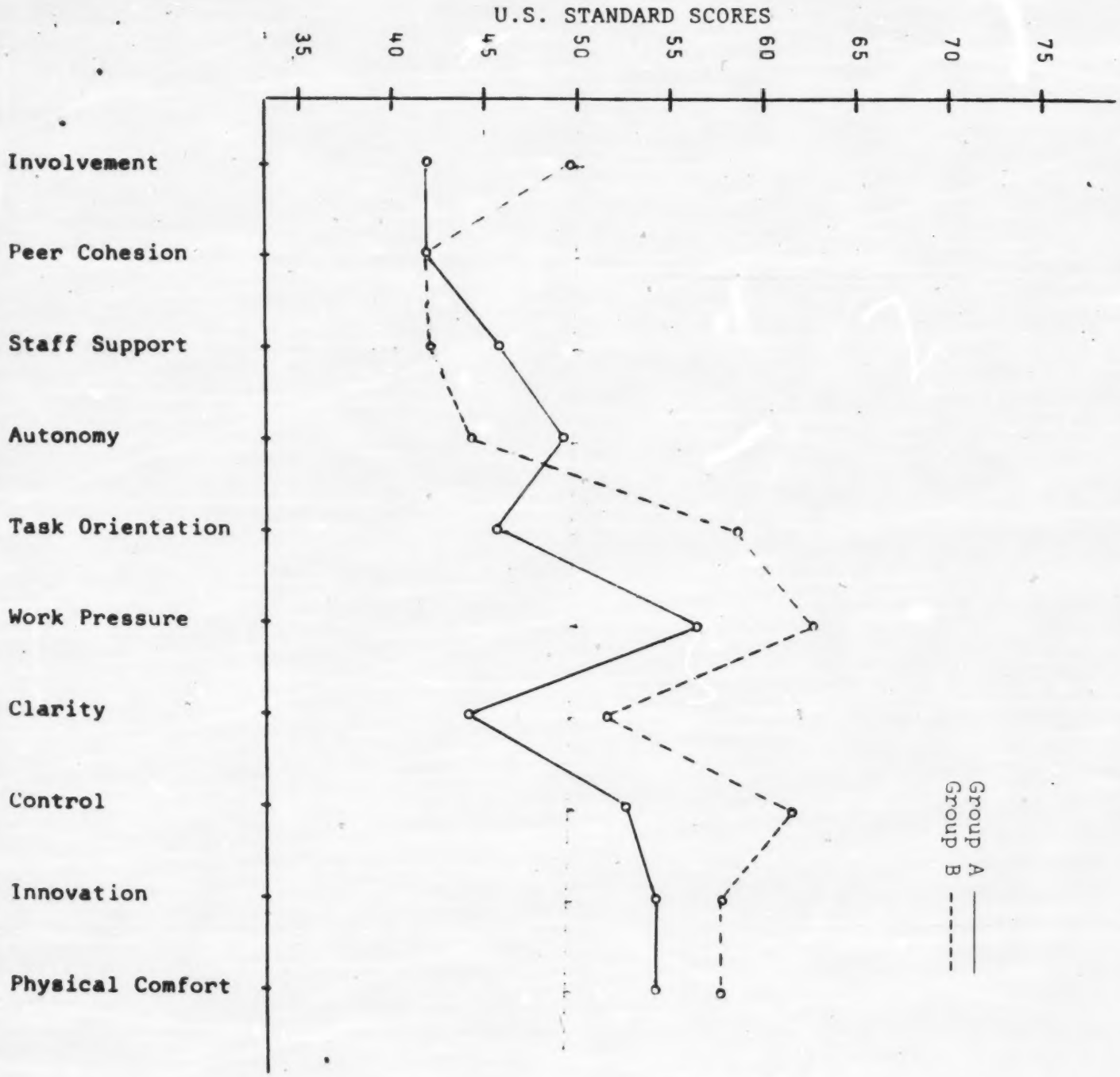
Graph 3: Groups A & C, Saudi Standard Scores



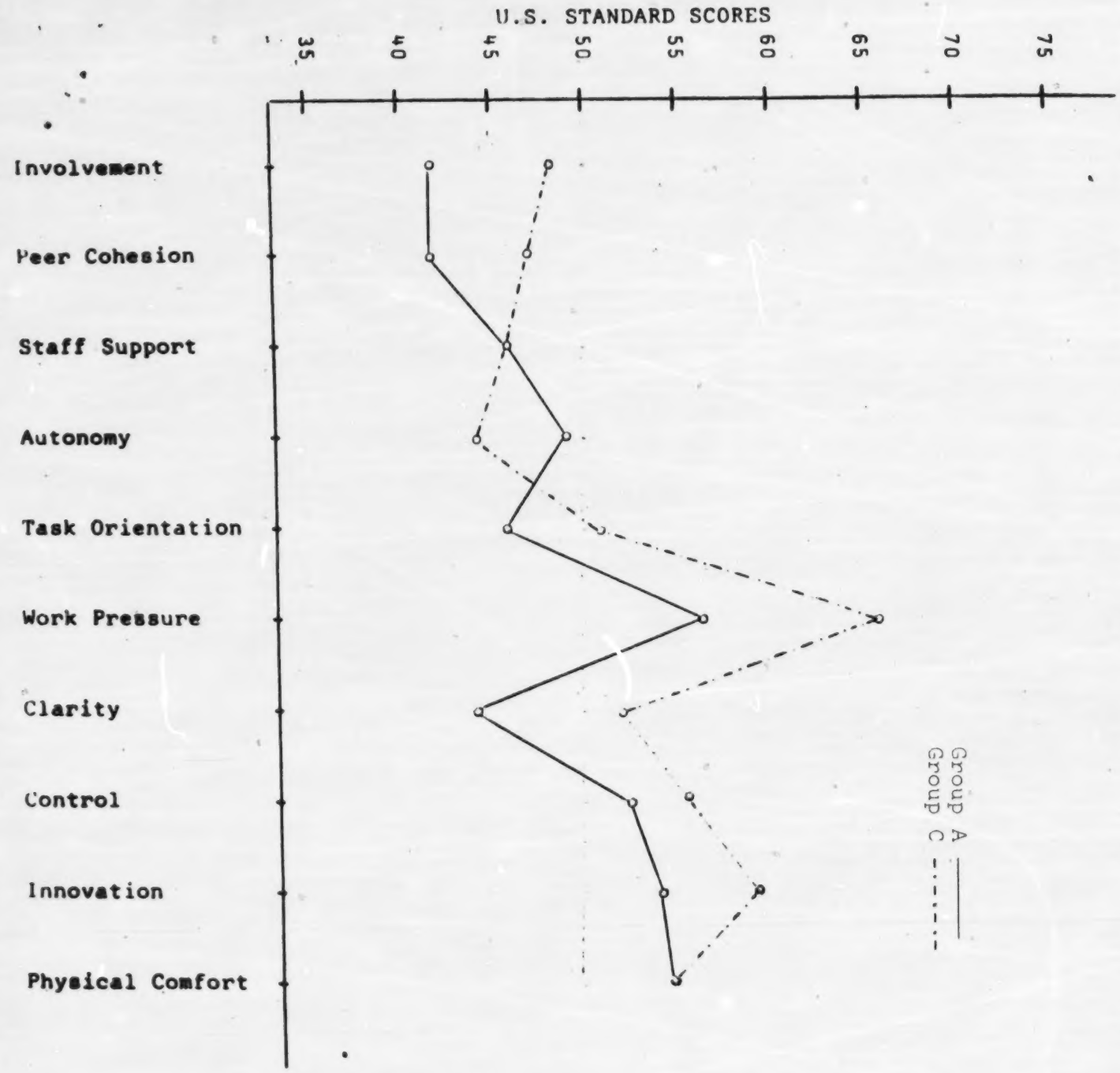
Graph 4: Groups B & C, Saudi Standard Scores



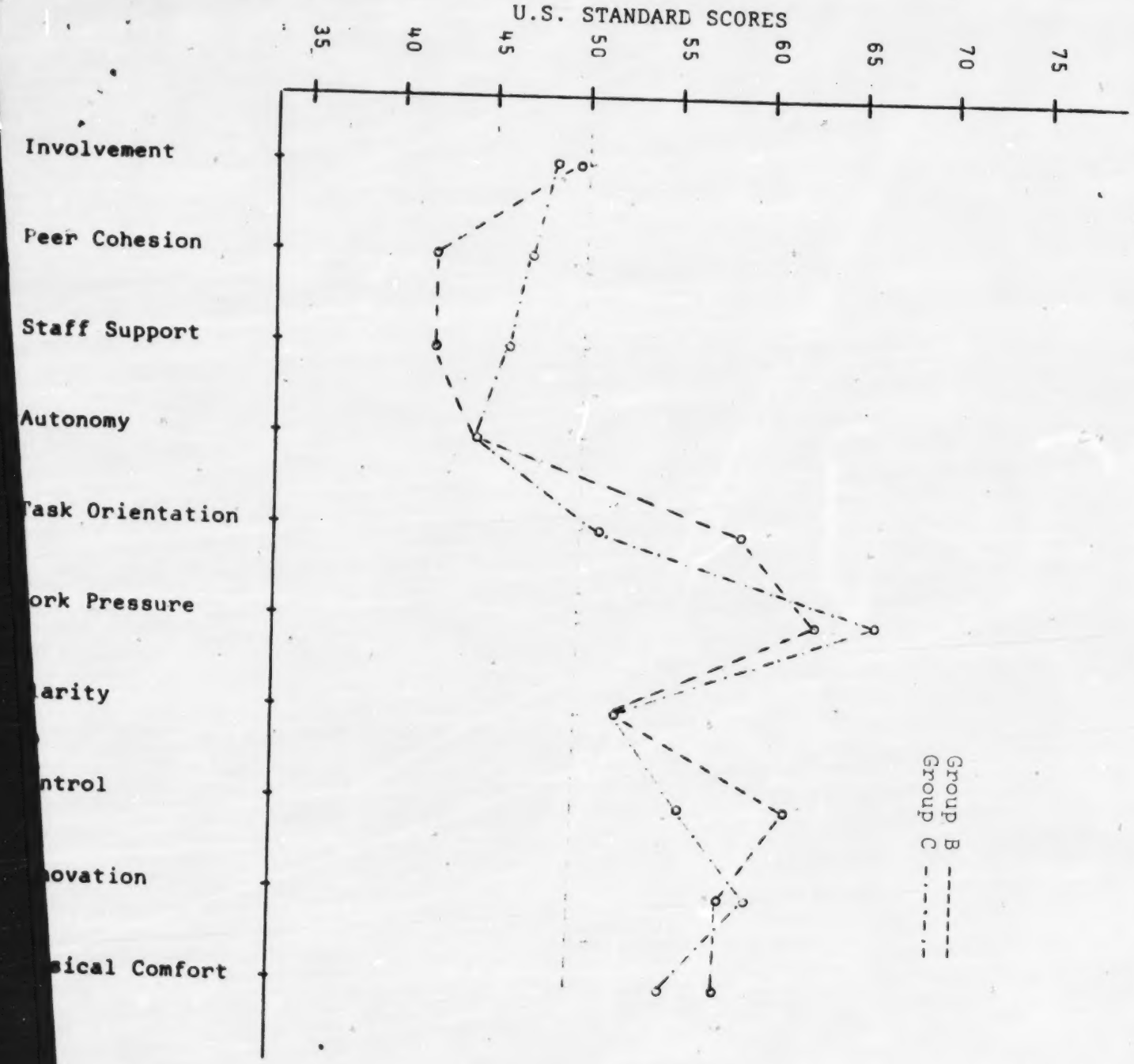
Graph 5: All Groups, U.S. Standard Scores



Graph 6: Groups A & B, U.S. Standard Scores



Graph 7: Groups A & C, U.S. Standard Scores



Graph 8: Groups B & C, U.S. Standard Scores